

REMEMBER  
MAY 11  
IT'S  
MOTHER'S DAY

# Timely



# Topics

For your future security buy U. S. Savings Bonds. These bonds can be purchased at the Credit Union Office.

April 30, 1947

★

Published by and for the Employees of the Hamilton Watch Co., Lancaster, Penna.

Copyright, 1947, Hamilton Watch Co., Lancaster, Penna.

★

Vol. 5, No. 3

## KEEP PRETZELS AWAY



We all like the call  
Of the soft pretzel man.  
We buy 'em and eat 'em  
Whenever we can.

But here is a rule  
We all must obey  
When working on watches  
Keep pretzels away.

Please don't think that pretzels  
Themselves are at fault  
It's RUST that we're after  
Because of the salt!

## FOUR NEW MEMBERS ELECTED TO BOARD

### Addition of New Members Brings Board Total to 13

At the annual stockholders' meeting on April 8, four new members were elected to the Board of Directors of the Hamilton Watch Company.

They are: W. Ross Atkinson, George P. Luckey, Charles C. Smith and Rudolph Kant, the four Company Vice-Presidents.

The addition of these new directors, permitted by a change in the by-laws, approved by the stockholders, brought the total board members to 13. Nine members of the board from 1946 were re-elected.

Old directors re-elected were: Frank C. Beckwith, Calvin M. Kendig, C. J. Backstrand, J. W. B. Bausman, Jr., William J. Neuhauser, Frank K. Sener, William Shand, J. Hale Steinman and Charles G. Watt.

Following the stockholders' meeting, the newly-elected board met and organized by selecting officers for the coming year. They are: Frank C. Beckwith, chairman of the board; Calvin M. Kendig, president; W. Ross Atkinson, vice-president in charge of sales; George P. Luckey, vice-president in charge of manufacturing; Charles C. Smith, vice-president in charge of finance and secretary; Rudolph Kant, vice-president in charge of public relations; Harry R. Lawrence, treasurer; Robert B. Thompson, comptroller; and William J. Neuhauser, assistant treasurer.

that stands out in Johnnie's memory happened the day before he began his career at Hamilton.

"I'll never forget it," John related. "It was Thanksgiving day of 1902 and I was taking tickets at the F. & M. Swarthmore football game. A fellow with his little boy comes walkin' up. He hands me his ticket and starts walkin' through the gate. I stopped him and asked him where the little boy's ticket was. He told me he gave it to the other fellow. There wasn't any other fellow. I made him go back and buy a ticket for the youngster. He squawked plenty, but went back and bought one.

"The next day when I came to work at Hamilton, I was amazed to find that the fellow I made go back and buy a ticket was my new boss, Jake Koch, foreman of the Balance & Flat Steel Department. I figured I had two strikes on me to start with, but Jake didn't hold it against me and we were the best of friends after that."

## NOONTIME MOVIES—"YES"

The results of April's vote on the continuation of Noontime Movies showed 105 employees in favor of their continuation as against none to the contrary.

The Personnel Department announced that due to the impending summer weather, Noontime Movies will not be shown until next fall.



"Oil Painting Is Fun"—Marie Caldwell

## RIDES NEEDED

Because of bus schedules not conforming to shift hours at Hamilton rides are urgently needed by many Hamilton employees working on all shifts.

If you drive a car and have room for extra riders kindly contact Personnel Department, giving your name, department and the shift you work on.



Charley Shindell, Timely Topics' cartoonist, and his sister, Kitty Wilt, both of the Escape Dept., went whackie for this picture. It was Charley's 8th wedding anniversary so sis decided to pose this shot with her brother for his wife's album. Johnnie Rill (Service) clicked the shutter for this pix.

There is something about Charley's appearance that gives him that Ben Blue effect. Charley admits that shortly after this picture was taken he put in an appearance at a party.

## PAINTING IS A HOBBY WITH MARIE CALDWELL

The most pleasant moments in a person's life are spent in a chosen hobby. Many people have many different hobbies.

In the case of Evelyn Marie Caldwell (Inspection), it's oil painting. She's good, too.

Marie has been painting with oil for four years and in that time has done some fifteen scenes, most of them taken from cards, calendars, scenes on waste paper baskets or real life.

The drawing bug bit Marie when she was a grade school student. She did a lot of sketch work then. Got pretty good at it so she decided to graduate to water colors and it wasn't long before she worked into chalk and tempore drawing.

By the time she was a Junior at Manor Township High School she felt that the difficult art of oil painting was right down her alley, so she spent all her spare time perfecting her hobby until she became one of Harry Book's top scholars.

Artist Book, who is art teacher at Manor High and who is known for his familiar paintings of Lancaster County, is Marie's idea of a great artist.

Marie's favorite subjects are scenes and flowers. Of the two, she admits she likes to do scenes better.

In painting a scene, let's say a winter scene, Marie follows a definite trend of composition. First comes the sky and the horizon. Then the foreground. Next comes a brook or a stream, then buildings and clouds. The trees and the added touches are always put in last.

Marie would like to further her artistic ability in college. She has a definite school in mind. It's the Indiana State Teachers College at Indiana, Pa. Her ambition is to teach painting and paint pictures herself.

Always willing to try something new, Marie figures that shortly she will attempt to paint animal pictures. She has a definite subject in mind. It's the picture of a beautiful collie dog adorning a calendar in her home. She has sized the picture up many times and feels that she can paint a suitable replica.

## VAUGHAN RUNNERUP IN 1947 A. A. U. MEET

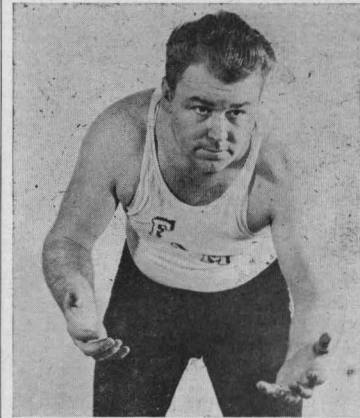
### Gunkel, Purdue Star, Gains 3-0 Decision in Mat Final

Dick Vaughan (Cost Analyst) competing for the Hamilton Recreation Association in quest of his fourth National A. A. U. heavyweight wrestling crown dropped a 3-0 decision to Ray Gunkel, Purdue University, in the finals held at the San Francisco Olympic Club, San Francisco, California, on April 11-12.

Gunkel, runnerup in the 1947 National Collegiates, scored his points on one escape and a two point top time bonus for four minutes.

Dick worked his way into the finals with decisions over Keith Wilson, San Jose State College, Bill Neubauer, Mountain View, Cal., and Don Arnold, San Diego State College. He beat Wilson, 10-0, threw Neubauer in 5:37 and decisioned Arnold, 4-2.

The Hamilton representative, who was competing in his seventh National A. A. U. tournament, won the heavyweight title three times in 1937-44-45. Only one other heavyweight in the long history of A. A. U. grappling has duplicated that feat. His name is J. Gunderson, who won crowns for the Dover S. P. in 1907-08-13.



Dick Vaughan

This is Dick's 21st year in wrestling. He started back in 1926 at Newton High School in New Jersey. He couldn't make the grade that year, but the following season he took over the 158 pound berth and did a capable job.

Running out of scholastic competition, Newton High was forced to invade college ranks for its action. While Dick graduated from Newton, he was allowed to wrestle for his alma mater because no eligibility rules prevailed against collegiate competition. During this period he was adding weight and shifted to the heavyweight division.

In 1933, Dick organized the Newton Boys Club and wrestled in the heavyweight class for them during 1933-34-35-36, winning the New Jersey heavyweight crown during these years. In 1936, the year he won both the Jersey 191 and heavyweight titles, he was voted the outstanding wrestler in the State championships. This same year he tried out for the United States Olympic (Continued on Page 3, Col. 5)

## SPENCER RETIRES AFTER 45 YEARS

On the last day of March likable John C. Spencer said "so long" to his friends in the Balance & Flat Steel Department after 45 years of faithful service with Hamilton.

And his friends didn't forget him either. The department chipped together and amazed him with their kindness and generosity. He received a new suit, shoes and a hat, plus a fluorescent bench lamp, two boxes of cigars and a can of smoking tobacco.

"It kinda put a lump in my throat to have the kindness of so many grand people showered upon me," John said.



John C. Spencer

John started as an errand boy in the Balance & Flat Steel Department in 1902, earning \$2.95 per week for 59 hours work. John commented: "I guess boys nowadays wouldn't consider that salary. But in those days it was big money."

John never worked in any other department. Since 1911, he was a job boss in Balance & Flat Steel. He said he remembered, when he first started work, a sign that hung in the department which read, "300 a Day."

"We were averaging between 175 and 200 watches daily in those years," John said, "and we felt that was big production. But that's a far cry from the daily production nowadays."

Over a span of 45 years many incidents take place. But the one



The Hamilton Watch Company Employee Newspaper

## EDITORIAL BOARD

Wallace Bork, Chair., Prod. Control  
J. Ed. Miller, Case Order Division

Margaret Keller, Chem. and Met. Res.  
Hazel Keller, Case Office

## EDITORIAL STAFF

General News and Production, Charles H. Frey  
Cartoonist, Charles Shindell, Jr.  
Personnel Consultant, R. A. Preston

## PHOTOGRAPHS IN THIS ISSUE

Timely Topics is indebted to the following people for photographs in this issue:  
Ned Aurand, "Dials & Dies," Johnnie Rill, "Shindell."

Copyright, 1947, Hamilton Watch Co., Lancaster, Penna.

Quotation or reproduction forbidden unless permission has been granted.

LANCASTER, PENNSYLVANIA—APRIL 30, 1947

## ANNUAL FINANCIAL STATEMENT FOR 1946

At the last meeting of the Management Association, your Assistant Treasurer discussed our financial statements under the following headings:

- Purpose of financial statements
- Statements defined
- Interpretation of statements.

The purpose of financial statements is to reveal the financial conditions of a corporation as of a certain date, as reflected by its Balance Sheet and the progress that has been made during the past 12 months as reflected in its Profit and Loss statement. Financial statements to be of any value must show a corporation's strong points as well as weak points. It is very important that the figures, as shown in the various statements, are backed up by corresponding values because of the many purposes the statements serve. Statements are used as a basis for individual and trust investments, loans, credit ratings and comparative studies of industry. To this end the statements must serve to inform, to guide and to protect the "investment customer" from going wrong. For example, the banker looks at the statements from the standpoint of credit. Is a corporation a good risk for a loan? He is primarily interested in the relations between the liquid assets and the current liabilities. The stockholder's interest is centered on the corporation's ability to pay dividends which will net him a substantial return on his investment and also how the value of the stock will react under the various Stock Market conditions. Each interested person analyzes statements from his own interested viewpoint.

The speaker then discussed the make-up and the purpose of the Balance Sheet, which is probably the most widely used as an all around purpose statement.

THE CONSOLIDATED BALANCE SHEET is known as the Statement of Condition—that is the financial condition of the corporation, as of the day on which the Balance Sheet was prepared. The figures and values as stated, may change decidedly by the close of the following month. Figures and values are continuously on the move, changing from day to day. While the Balance Sheet shows the condition of the business on a particular date in our company, these figures represent the historical summary of all financial transactions that have transpired during the 54 years history of our company, which naturally included good times and bad times, prosperous as well as depression years, bad planning and good planning. The financial value of the 54 years of housekeeping is reflected in our Net Worth of \$8,000,000 (total Assets \$9,962,000—total Liabilities \$1,927,000). Please bear in mind that the Net Worth of \$8,000,000 is what's left in value, but the real worth of this company should be measured by the millions of dollars that have been distributed during these 54 years, in the way of wages, dividends and disbursements for ma-

terials—the support that it has given to thousands of families.

THE CONSOLIDATED STATEMENT OF INCOME, better known as the Profit and Loss Statement, is considered the Statement of Progress, as it usually reflects what has transpired during a 12 month period. A 12 month period is usually considered the most satisfactory period for the Statement of Income, as it fairly represents a cycle of ups and downs in the volume of sales.

THE CONSOLIDATED STATEMENT OF EARNED SURPLUS must be considered as an addition to the other 2 statements previously mentioned to complete the picture of all financial transactions that took place during the period covered. This statement really reflects the dividend policy and possibilities of the corporation as well as management's policy for preserving its future stability. It is the statement that shows whether we are spending all that we make or whether we are saving some for the "rainy day."

### C. INTERPRETATION OF STATEMENTS

#### BALANCE SHEET—ASSETS (WHAT WE OWN)

##### CASH

Cash is truly the most tangible Asset that a corporation can have. A picture of our cash requirements will clarify this statement. The biggest single item of expense is payroll. Our payroll has now reached the staggering amount of \$120,000 per week, \$24,000 per day, \$3,000 per hour. The next largest item of expense is purchases, which includes the purchases of raw materials, cases, advertising, electricity, coal and other items of a miscellaneous nature and amounts to an average of \$154,000 per week, \$31,000 per day, \$3850 per hour. To these we must add our dividend payments of \$500,000, all of which gives us a grand total of approximately \$14,000,000, or an average cash outlay of \$1,200,000 per month, \$54,000 per day, \$6,750 per hour. Now let us look at the cash balance that we had on hand 12/31/46 in the amount of \$1,248,000—yes just enough to keep this plant operating for one month. Note—Since the adoption of our new payroll plan, as of February 6, 1947, requiring a fixed deposit in our 5 City Banks to eliminate the payment of the 10c service charge, restricts from current use another \$550,000. Until we are able to accumulate a cash balance considerably in excess of \$2,000,000 we will be unable to pay back our bank loan of \$500,000.

##### ACCOUNTS RECEIVABLE

This amount of \$2,130,000 represents the amounts owed by our customers on their purchases for the month of December. We consider our Accounts Receivable 100% collectible. Our December sales were much higher than the average monthly sales for the year. Due to the fact that we were emerging from our war production program, the first half of 1946 was required to build up a civilian inventory before

the production of completed watches really got started.

### CLAIM FOR REFUND OF PRIOR YEARS TAXES

This amount of \$136,000 represents refund of taxes covering prior years adjustments in favor of the company.

### INVENTORIES

This amount of \$4,890,000 is the largest single item of our Assets and represents just about 50% of everything we own. The general trend of all industries last year was a decided increase in inventories compared to prewar periods. However, one very important thing about our inventory that we must not forget is this, it represents nearly \$5,000,000 of good cash that has already been spent and must sometime be charged against income, either as good material used or be charged off as pure expense, should any of the items become unusable because of obsolescence or deterioration.

### CASH SURRENDER VALUE OF OFFICERS LIFE INSURANCE

This insurance now representing a cash value of \$103,000 was originally taken out on the lives of several of our Officers as a matter of protection to the company. The face value of these policies is \$200,000; Hamilton Watch Company is the beneficiary.

### INVESTMENTS

This amount of \$90,000 represents the present day value of our investment in the General Times Instrument Corporation and the Lancaster Suburban Water Company.

### PLANT AND EQUIPMENT

This amount of \$4,412,000 represents the cost value of our buildings and equipment, less the estimated amount set aside to represent the reduction in value due to usage, obsolescence and other factors, all of which contribute toward the shortening of the life of the buildings and equipment as well as reducing their financial value. This reduction in value must be accounted for annually as a cost item, known as depreciation.

Buildings and equipment are similar in nature to inventories, both are deferred costs to future operations. In order to stay in business a corporation must recapture the cost of all its buildings, machinery and tools in the sales price of its product. For that reason depreciation must be included as an item of cost.

### PREPAID EXPENSE

This amount of \$25,000 represents the unexpired value of insurance premiums, interest on bank loans that were paid in advance. Each month a portion of the unexpired balance is charged off as expense. This is done on the theory that the period which benefits from the advanced payments must bear its proportionate share of expense. The reason for considering Prepaid Expense as an Asset is due to the fact that if these expenses would not have been paid in advance the equivalent in cash would be on hand.

### BALANCE SHEET LIABILITIES (WHAT WE OWE)

#### NOTES PAYABLE

The necessity for this loan of \$500,000 has been previously covered under the explanation of our cash requirements.

#### INCOME TAXES

This amount represents the Income Tax on our net profit of \$1,500,000, an average rate of about 38%.

#### CAPITAL

This is a broad term for all Capital Stock outstanding, including the amounts under the Capital and Earned Surplus Accounts. Capital

## Joe Walkaround

**SHORTIES:** Hen Benner (Traffic) passed the el ropes on March 3 for his first son, Larry David, who tipped in at 5 lbs., 15 ounces . . . Betty Martin (Case) was strictly surprised when "Mrs. Hush" didn't turn out to be WAC Margaret Hastings . . . Harry Golder is the voice on the Hamilton movies . . . Pax Gifford (Crystallography) sez he thinks he's conquered the midnight antics of his young son because he gets a lot more sleep now . . . Found out why girls can read so many books . . . It's because they skip pages . . . Sammy Gatchell (Assem. Res.) used to be head usher at the Colonial . . . Jimmie Heider (T & M Study) is one guy with a varied assortment of pipes . . . He had one lying on his desk the other day that looked like a curly maple flower pot with a handle attached . . . Harry Longenecker (Print) did Bill Hartman (Traffic) a kind deed the other day in the cafeteria by picking up his empty coffee cup and saucer and carrying it to the dish window . . . Bill, who was in deep conversation with someone at the time, didn't see Harry take it away . . . When Bill was finished gasing, he picked up the ash tray, on the table and carried it toward the window before he realized it wasn't his cup and saucer . . . Marie Stonesifer (Purchasing) sez her husband calls their dog, Torg, the name of a character in the funnies . . . Wally Bork (Prod. Con.) had a birthday recently and was passing the buns around like water . . . Jack Conklin (Display) played some golf on Sunday, March 9 . . . Said there wasn't much snow to contend with . . . One guy said he thought sure that Sadie Hawkins was "Mrs. Hush" while another said he figured it was Frank Sinatra.

**KNOCKIN' OUT NOTES:** Doris Burgess (T & C) was talking about orchestras the other day and decided that Carmen Cavallero's band was her favorite . . . Paul Seibel (Sales) recently returned from Cleveland and Cincinnati and says he likes both places very well but can't stand those tax tickets they hand out with every little purchase . . . Eddie (Case) Miller's office attracts considerable attention from month to month . . . The eye catcher is the Petty calendar hanging above his desk . . . Ted Lamparter (Service) was one of the two servicemen who spoke on India at a meeting of the Young People of Trinity Lutheran Church on the evening of March 13 . . . Ted was a former member of the Air Service Command . . . Terry Connor (Switchboard) said she made a green dress to wear on St. Pat's Day, but never got it finished in time to display same . . . Peggy Morrison (Personnel) hails from Vancouver, Washington . . . Likes to brag about it, too . . . Speaking of the Irish, Tom McFadden (Maintenance) was sporting a green carnation in his work shirt on March 17 . . . Lucille Lefever (Adv.) is a new employee in the dept. . . Lucille replaces Edith Denlinger, who left the company on March 14 . . . Florence Blumenshine (Legal) liked the "Jolson Story" so much she saw it twice . . . Francie Meyer (Watch Design) said he was "mugged" so often the other night at the Camera Club that he felt like Peter Lorre . . . Esther Hess (Gen. Files) watched a younger employee flit up the steps the other day and then said to a passerby: "I wonder if he'll be able to do that when he reaches my age?" . . . See where the donuts went up two cents? . . . Arlene Schuldt (Personnel) is the new gal in the dept. . . The first report we heard of robins in the vicinity was made by Harold Shoff (Train), who said he saw two in his backyard out Millersville way on St. Pat's Day . . . Chet Bostick (Maintenance) reports the Philly flower show was a blooming success . . . Howard Riegert (Tabulating) is another guy who tells fantastic tales about his greatness . . . Heard where Frank Bitzer (Tabulating) bought a new boat . . . Saw a dumb starling the other day . . . It was hopping along, stepped in a hole and fell flat on its beak.

**DOGGONE:** Bill Barber (Finishing) decided he was going to get rid of his dog the other Sunday, so he took it out to the dog pound at the Fair Grounds . . . He locked the dog in a barn and started back home . . . Just as he arrived at his domicile, elated over the fact that at last he was rid of the mutt, he looked up and saw the dog standing at his door waiting for him . . . The pay-off came when his wife told him she thought something happened to him because the dog came home first.

**MORE JIBBER:** Helen Lingenfelter (Receptionist) was walking up the hallway the other afternoon and told a passerby she had a little bird in her heel . . . Who cooked up the bright idea of getting rid of cement by pouring it down the flat drain adjacent to Bldg. No. 9? . . . The \$64.00 answer should be sent to the Chem. & Met. Res. Lab. . . If you can sing, dance, play an instrument or M. C. a show see Bill Musselman (Flt. Steel) . . . He's in the market for some talent . . . Ezra Buckwalter (Cafeteria) says he believes lemon ice is heavier than any other ice cream made . . . Ben Hummel (Watch Design) likes to sing the praises of dear old Lehigh . . . did you get a gander at the bow tie Ted Franklin (Sales) was totin' around under his chin the other day? . . . It was a lulu . . . Understand one of the gals in Ted's department took a look at the tie and before she hit the deck was heard to say: "Oh, Frankie" . . . Just a reminder, but the annual campaign of the Lancaster General Hospital will be held May 1-21 this year . . . And while on this subject, the 1947 National Buddy Poppy campaign will be launched by the Veterans of Foreign Wars one week preceding Memorial Day (May 30) . . . This year the National Buddy Poppy Girl will be juvenile film star, Margaret O'Brien . . . Bob Wilson is the new employee in the Purchasing Dept. . . Lyn Wallick (Train) says a sure way to start the day with a headache is to crack your noggin' on one of those luggage racks in the new buses.

**NEAR THE END:** Jane Moss (Sales), who took her vacation early and went to Florida, came back with a lot of low down on the big league ball players . . . Seems Jane thinks the St. Louis Cards look like the team to beat in the National . . . Johnnie Landis is the new mail distributor from Traffic, succeeding Johnnie Miller, who was upped a notch in that section . . . It's a shame how many people bat their noggins on the overhead racks in the new buses . . . Get Pax Gifford (Crystallography) to tell you the yarn about the guy in the "diz house" with the bag of oranges . . . The fellows in the Service Department would like to know how Dick Weaver (Dial) caught ten fish in ten minutes on the opening day of trout season . . . That outfit worn by Charley Shindell (Escape) for the front page picture in this issue is not a Mary Sachs' creation.



## TOOLING FOR WATCHMAKING

by Ralph B. Mentzer  
Assistant Mechanical Supt.

(ED. NOTE: Mr. Mentzer's article was first presented as an address at the meeting of the York, Pa., chapter of the Society of American Tool Engineers on Feb. 11, 1947.)

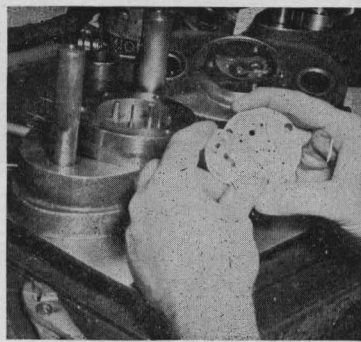
Watch tooling is a complex job and includes not only the actual cutting and machining tools but the necessary jigs and fixtures for holding and checking the work done during and after processing, for inspection, etc. Before the war the tooling cost for a new model was generally considered a \$60,000 job extending for perhaps a year—today, the cost would be considerably higher.

Take the foundation of the 16 size and the 22/0 size Hamilton watches—they are plates and bridges inside of which is the mechanism. The 16 size is the large watch approximately 1 1/2" in diameter required by the railroads. The 22/0 size is a ladies watch and the

of sub presses are used. Practically no open die work is done.

The first die operation is blanking the plate and bridge shapes from nickel silver strips. The stock is sufficiently thick so that all the pull down along the edges is eliminated by later lathe facing operations—also, the outside shape is larger than the final because all odd shapes are shaved at same time after blanking. Hamilton's Quality Control Department will not accept simply a punched form with the invariable break at the shear point.

The dies for these odd shapes are made in an interesting manner and are worthy of a rather lengthy description. Most of the watch shapes are irregular and the die is made in 2, 3 or even 5 segments depending upon the rules of experience. These segments are fitted together very accurately and are driven into a



Disassembled jewel hole shaving die showing the sub press and the component parts.

treatment and is not too difficult to machine with as little tearing as possible—"Stentor" is currently being used and it is hardened and drawn to 60-61 Rockwell hardness.

After heat treatment, the die is reassembled and checked against the coordinate measurements which are given for each part—in some cases, accuracy of hole locations to less than .0001 of an inch is necessary so that a .0001" in production of the part can be held.

Assuming that the check is all right, and that no hand stoning is necessary to correct the shape, the die is now assembled in the sub press. The punch blank is then taken, coated with solder and forced against the die to get a rough lead impression. The punch is then roughed out on a lathe, using a milling attachment, to approximate shape, and then by a series of squeezes of a few thousandths, forced into the die. During the process, the chips turned up are cut away with a hand graver to help reduce the force necessary to shave. Furthermore, the punch must be milled long enough to permit not only proper wastage during the subsequent sharpenings, but also to permit perhaps 3/16" of the end to be cut off for the shedder which will thus exactly fit the die.

The shedder is really an ejector as comparatively few operations are done in which the blank is forced completely through the die—it is found that for thin shapes, the work has a tendency to buckle and for this reason a heavy spring box is placed beneath the shedder and hence keeps the work piece firmly clamped between the punch and the shedder while it passes the cutting edge of the die. In designing the blanking die, if there are any sharp corners on the contour of the piece, a ball (really a circle) is put at that point and trimmed to the exact shape at a later operation—this prevents excessive strain or pull down and also materially strengthens the punch.

The punch itself is surrounded by a spring loaded stripper plate which forces the stock off the punch—and incidentally, considerable punch breakage is noted, not in the actual piercing of the metal, but in stripping and surrounding stock from the punch. On watch hands, for example, a set of chisels is sometimes incorporated at the ends of the shape to partially fracture the entire stock cross-section and ease the pull off.

Now the blank, with perhaps a few holes put in it at the same time, has a comparatively ragged edge or break which must be eliminated. If the work piece be steel, a tremble press is used, i.e., the cross head of the press is oscillated by a .040" eccentric driven at 1500 R.P.M. while the base of the press moves to close the die. Consequently, the work is forced through the shaving die by a swift series of little pushes which act to produce a good clean side to the work piece.

Another interesting point about these tremble press dies is that the punch is .003" larger than the die on all edges and hence can never enter the die—therefore, a thin strip of brass must be inserted between the

the cutting edge of the die and yet the punch is absolutely protected from bottoming on the die. So much for the shaving of steel pieces.

For nickel silver, again the process is different. Here a cam actuated slow speed press is used which closes the sub press very slowly and gives a nice accurate edge—all shaving operations produce .003" chips and for extremely accurate location of holes, two shaving operations are used.

As for rules of die making, quite a few are violated. For example, a hole should never be pierced which is longer than the diameter—but it must be done. Some of the holes are twice as long as this diameter, hence the punches are worked almost to the ultimate.

As a general rule, from 5,000 to 10,000 pieces per sharpening of the punch and die is considered satisfactory—sharpening removes about .002" from each.

Some complicated compounding of dies is now being done, such as, trimming outside shapes with perhaps first shaving 5 or 6 jewel holes and finish shaving 8 or 10 other holes—this is done to save production cost but makes die making exceedingly complicated.

Hamilton also uses several other types of dies:

### (1) Bevel and Stamp Dies:

These dies are used to stamp the name "Hamilton," the grade, etc., on the nickel silver plates or bridges. A hand cut master is used. This master is pushed into a soft steel blank (Colonial No. 7-Vanadium Alloys) using a 250 ton hydraulic press—usually in from 3 to 5 pushes and with anneals between each. It has been found that sheep tallow is a very good lubricant during these pressings.

### (2) Embossed Dial Dies:

On Hamilton's highest quality dials, the name and track are inlaid with vitreous enamel. To do this the minute and second track are pressed in the sterling silver blank using a die produced in a somewhat similar manner to the aforementioned bevel and stamp type.

### (3) Swaging Dies:

Considerable swaging of all types from steel to 18K gold is done. On the steel parts, a pin or hub is usually erected, while on sterling silver an integral dial foot is desired.

Two types of flow are experienced between steel and non-ferrous metals. With steel a pin is erected by squeezing all the surrounding metal except the pin—the pin gets only slightly, if any, higher in the operation. In gold, the dies are scored to keep the metal from flowing away and a foot 3 or 4 times the length of the original stock thickness is actually erected. These swaging operations vary as to the number of passes required and to possible anneals according to the material being processed.



Die set in use on tremble press (used to shave contour of 980 clicks).

## VAUGHAN

(Continued from Page 1, Col. 5)

team, but was eliminated by George Hawley, a 6 ft. 8 in., 312 pounder representing the New York A. C.

His first fling in National A. A. U. competition in 1937 at the Baltimore Y. M. C. A. was a booming success as he captured the heavyweight title. Olympic rules prevailed and Dick disposed of three opponents to garner the crown with no bad points against him.

It was during this tournament that Dick met Uncle Charley Mayser mat coach at F. & M., who had several boys entered in the meet. Mayser was definitely interested in the new champ and the following fall Dick enrolled at the Diplomat institution. That's the year the National A. A. U. meet was held at McCaskey High and Dick didn't place.

After grappling in some 30 odd meets over a four year span for F. & M., Dick graduated and was again on his own.

In 1943 he copped a third place medal in the Nationals when the meet was held at the New York West Side Y. M. C. A. When the Nationals were held again at Baltimore in 1944, Dick came through with his second heavyweight title.

The following year he carried his prowess into action at the Sportatorium in Dallas, Texas, where he threw two beefy burdens weighing 312 and 345 to gain his third National crown. Dick, who weighed 220 for this meet, tossed Ohio State's George Bolas, the 345 pounder who is now grunting in the pro racket.

Last year the Hamilton employee gained a second spot in the Nationals at the New York West Side Y.

Just how long Dick intends to keep going in wrestling, he hasn't divulged. But there's one thing he's gunning for and that is a spot on the 1948 United States Olympic team when it competes in London.

## GUN CLUB SMOKER GOES OVER BIG

The first free Hamilton Gun Club Stag Smoker held on April 18 at the 7th Ward Republican Club was a big success.

The Smoker, open to all Gun Club members and their male friends, was the first real get together the club has held in its history.

Prize winners at the affair were: Sam Rohrer (Personnel), Max Caldwell (Sm. TL), John Waller (Dial), Harry Hovis (Works Lab. Sup.), Bob Fickes (Spec. Asem.), Clyde Barley (T. & C.), Chris Steckervitz (Bal. Flt. St.), R. H. Bragg (Service), Jim Farmer (Qual. Div.), Paul Seibel (Sales), C. Anderson (T. & C.), Bill Mellinger (Fin.), Chas. Aumon, Jim King, Pat MacFarland, Howard Riegart (Tabulating), A. Fox (Maintenance).

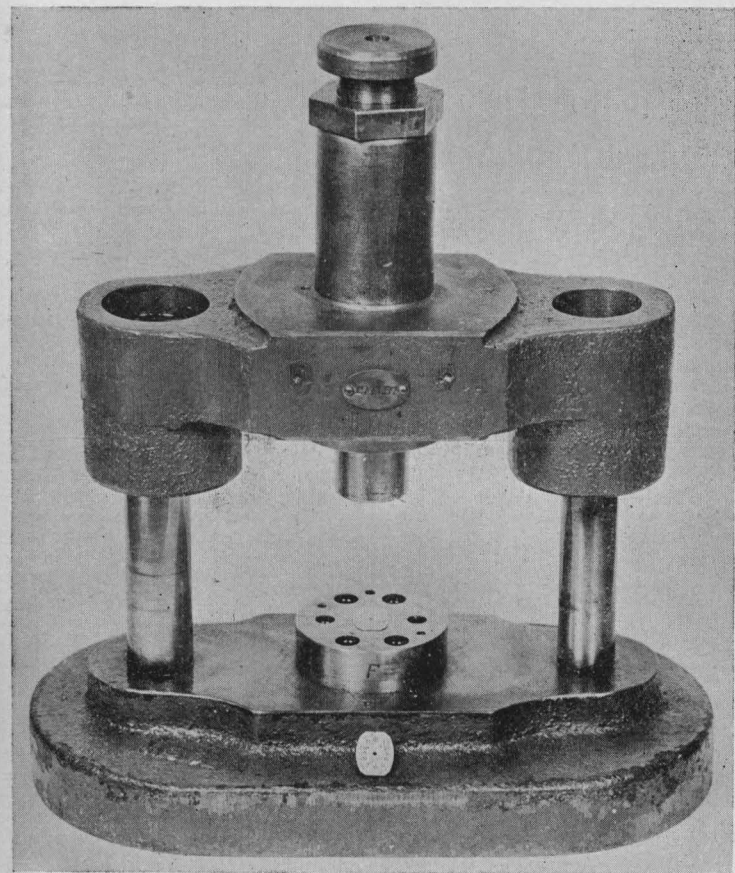
A spokesman for the Gun Club stated: "The Smoker can be called a success because it brought together for the first time all members of the Gun Club who had a good time."

## STATEMENT

(Continued from Page 2, Col. 3)

represents the stockholders' equity in the business, arising from the original investment, plus values that have resulted from revaluation of plant and equipment (appraisal made 1920) shown as Capital Surplus \$1,040,000, and all retained earnings in the business shown as Earned Surplus \$2,537,000.

The Balance Sheet shows our company is in a good strong financial condition, \$4.50 of current assets for each dollar of current liabilities.



Die mounted in sub press, used for the embossing and inlaying of Hamilton dials.

movement can be completely covered by a "dime." Even though modern styling demands this reduction in size, the number of parts remains approximately the same in both a large and small timepiece—an average of 140 separate parts.

Consequently, tooling is constantly becoming more complex due to size reduction of parts and increased inspection standards as well as due to the combining of a number of operations to effect cost savings.

This tooling story is written only around the high spots but in a chronological manner—i. e., the different kinds of tools as they are successively used in the processing of watch parts will be discussed. Don't be alarmed by inconsistencies—for each general rule given, there are probably as many violations as adherences since constantly varying situations make rule breaking and improvisations mandatory.

Without doubt, the most elaborate of Hamilton's processing tools are dies—and because of their importance the bulk of this article will be confined to the description of their design, their making and their use.

At Hamilton several different sizes

supporting ring with a 2 degree mating taper and fitted with a dowel pin for alignment.

After these segments have been made and assembled in the soft, the top is coated with solder and a previously made master form of the part (called the "origin") is positioned and lightly forced into the lead to obtain an impression. Now the die worker disassembles the work into its component segments and with the aid of the milling attachment for the bench lathe, he proceeds to rough out his shape—being careful not to get too close to the line. After rough milling, the segments are reassembled in the retaining ring, the solder ground off the top surface and the origin (which is sharpened by having approximately 1/2 degree clearance on the sides) is painstakingly pressed into the steel a few thousandths of an inch at a time with perhaps a second milling to the more nearly approximate shape from the steel impression. In this manner, eventually, the origin is pushed through to approximately five thicknesses of the stock it is proposed to blank.

Naturally, a steel is used which holds its shape well during heat



## • SPORTS SHORTS •

**BING MILLER** (Finishing), who is under contract with the **ALLEN-TOWN CARDS** of the Inter State League as a pitcher, doesn't like the terms the club is offering and is sitting on his hands . . . **BING** started his baseball career at **MANOR HIGH** . . . He then went to **JOHNSON CITY, TENN.** . . . From there he graduated into the **PIEDMONT** circuit with **LYNCHBURG** . . . Then the Army grabbed him for some service and when Uncle Sam released him, he reported to **SALISBURY** of the **EASTERN SHORE** loop . . . **ALLEN-TOWN** then stepped in and purchased him at the end of last season.

**JINX GANSE** (Insp.) will operate in the capacity of business manager for the **WATCH NINE** softball team . . . **JINX** does a highly efficient job.

**LES KACHEL**, former **F. & M.** swimmer, is now employed in **T. & M. Study Dept.** . . . **DICK VAUGHAN** (Cost Analyst) is collecting material for a book on sports at **F. & M.**

Betcha never knew that **WYN DAVIS** (Dir. of Planning) used to box at **CARNEGIE TECH** . . . Or that **M. F. MANBY** (Dir. of Engineering) played a lot of high powered professional basketball in Philly and Jersey during his heyday.

**BOB BRANER** (Spring Rm.), the new manager of the **WATCH NINE** softball team, will handle an outfield berth for **BIRD-IN-HAND** in the **CITY & COUNTY** baseball loop this summer . . . **FRANKIE REMLEY** (Prod. Con.) has definitely given up softball . . . Ditto for **FRED HAUER** (Prod. Con. Sup.) . . . **FAULTLESS** is this corner's selection to win the **Kentucky Derby**.

**BOB RAVEN** (Budget) lists his summer activities as tennis and sailing . . . If you want to hear a guy brag about his baseball prowess, have a listen to **FRANKIE KOZICKI** (Tabulating).

**WOODY SPONAUGLE** admits he was more than satisfied with his 1946-47 **McCASKEY HIGH** basketball team . . . **CLARENCE** (Purchasing) **REESE'S** son, **DICK**, and **CHUCK GROVE** form the nucleus for the 1947-48 **McCASKEY** quintet . . . **ROXY FORGIONE**, the local pro fight promoter, will probably stage his summer fistic attractions at the **MAPLE GROVE OUTDOOR ARENA** . . . His pal, **DICK CURLEY**, the ancient pro wrestling promoter, secured some 17 dates for the use of the **GROVE** during the summer months . . . **HARRY LONGENECKER** (Print Shop) will not coach the **GIRLS' SOFTBALL TEAM** this season . . . **FLORENCE KLING** (Adv.) imagines she'd do all right at bowling if she stuck to the sport.

According to **BAGS BROOME** (Machine Shop) not enough time prevails over the noon hour lunch period to conduct a checker tourney successfully . . . **BAGS** suggests that a checker team be selected to represent **HAMILTON** in matches with other local industrial firms.

**PAUL RODGERS** (Cafeteria) is strictly an **ALLEN-TOWN H. S.** sports fan . . . Used to live and work there and still adopts the school as his alma mammy . . . **FRANK CHRISTOFFEL** (Management) owns a 14-foot **Barbour** outboard called the "**BUZZY ANN**" . . . The boat is named for his two youngsters . . . **CARL YECKER** (Watch Design) and **H.R.A. Prexy**, says it might not be a bad idea if darts were included on the **H.R.A.** sports program.

**RUSS KUHN** (Dial), who has been out of softball for a few years due to a bad back, will attempt the climb to the top once again with a fast going city team this summer . . . In dropping a decision to **RAY GUNKEL**, the **Purdue Boilermaker** in the **National A. A. U.** finals in California, **DICK VAUGHAN** wrestled with a partially dislocated right knee . . . **DICK** made no alibis for dropping the nod, but did say that he would have made a better showing against **GUNKEL** had his knee been OK . . . **DICK** said that **DON ARNOLD**, the **San Diego State** College representative who he beat in the semi-finals, had one of the finest builds of any wrestler he ever competed against . . . It was in the **ARNOLD** match that **DICK** suffered his knee injury.

**BOBBY KING** (Plate) likes ice hockey better than any other sport to watch . . . In all probability pro basketball is his second choice . . . **AMY KLINE** (Maintenance) says that when he played football he only weighed 121 pounds in full grid togs.

Read in "**THE SPORTING NEWS**" where there are 388 minor league baseball clubs in operation . . . Of this number 234 are owned by or working with the majors . . . **BOB WELSH** (Adv.) is going heavy with the publicity for **FRANKIE BAUMHOLTZ**, the former **OHIO UNIVERSITY** basketball and baseball star . . . **FRANKIE** is currently holding down an outfield job with the **CINCINNATI REDS** . . . **BOB** and **FRANKIE** were classmates in college.

Question of this issue . . . If the **LANCASTER ROSES** baseball team has a working agreement with the **PHILADELPHIA ATHLETICS**, how can they hope to get any help from a club that's nothing more than a minor league team itself?

**HAROLD HERR** (Service) says he'd like to know how the **P.I.A.A.** operates . . . That's what a lot of other fans would like to know, **HAROLD** . . . **MURRAY GOULD** (Patent Atty.) recuperating from a recent operation, is looking forward to getting better quickly and playing some tennis . . . By the way, **MURRAY**, how did you like **BOBBY RIGGS'** victory over **DON BUDGE** in that recent pro tourney in **PHILLY**?

**SANDY YOHE** (Print Shop) wants to know if we heard the rumor afloat that has **ELMER KREISER**, former **COLUMBIA HIGH** footballer and who was all lined up at **VILLANOVA**, going to **BLOOMSBURG STATE** **TEACHERS** to play his football . . . Yeah, we did **SANDY** . . . We even heard that for a time big **ELMER** was considering **MILLERSVILLE STATE** **TEACHERS**.

Now that the weather is warmer the noontime quoit enthusiasts are really pitchin' . . .

This is old news, but it's important news . . . The **MACHINE SHOP** held its second annual bowling tournament at **OVERLOOK** recently . . . **MILT BRICKER** copped the high single of 215 without handicap . . . The high single handicap honors went to **DON BAUERS** with a 254 . . . **WARREN HARNISH** slapped out a 557 high triple without handicap . . . **CHARLEY GEHR** with handicap blasted a 637 triple . . . The **DRILLS**, a team composed of: **H. DATESMAN**, **R. KOPP**, **D. BAUERS**, **J. DUNN** and **NORM TRIMBLE** plastered a 2393 high triple without handicap . . . The **CALIPERS** composed of **C. PETERS**, **J. HOSTETTER**, **H. FIESTER**, **R. KOLLER** and **C. KOLLER, SR.**, waxed down a 2490 with a handicap to snag high triple honors.

Quite a few of the **HAMILTON** sporting gentry figure the stretch imposed on **LEO DUROCHER** by **HAPPY CHANDLER** was a bit too stiff . . . On the other hand, a few seem to think "**THE LIP**" had it coming.



Winners of the **H.R.A. Mixed Doubles Bowling** title were **Warren Sweigart** (Machine) and **Jean Hertzler** (Dial). **Wilmer Gingrich** (Chem. Res.), left, presents a **Myron** to **Warren**, while **Jinx Ganse** (Insp.), right, gives **Jean** an **Olga**.

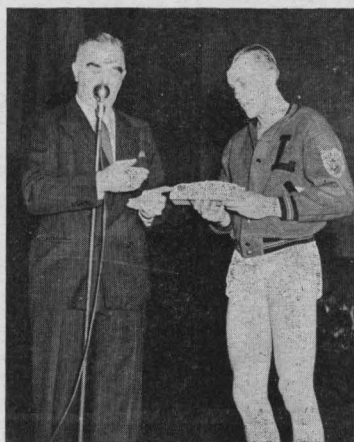
### MEN'S SOFTBALL TEAM OPENS SEASON MAY 12

**Hamilton's** entry in the **Men's City & County Softball League** will be composed of young diamond blood, not too experienced in softball cunning, but packing plenty of enthusiasm and scrap.

That's what Manager **Bob Braner** (Spring Rm.) is looking for as he preps his team for the opening loop tiff on **May 12** at **Maple Grove**.

"All positions are wide open," **Bob** said. "We're after a hustling ball club, one that likes to play ball. We aren't expecting miracles, but rather to give all the players on the club a chance. It's the players who show the most hustle and spirit who will land the jobs."

Manager **Braner**, who is assisted by business manager **Jinx Ganse** (Insp.), has the following players under his wing: **Red Bauers** (Machine), **Hal Fiester** (Machine), **Charley Gehr** and **Russ Hoak** (Small Tool), **Red Fitzgerald** (Press), **Vern Hilt** (Machine), **Charley Peters** (Small Tool), **George Dommel** (Spec. Assem.), **Paul Rice** and **Paul Hershey** (Watch School), **Bill Kieper** (Finishing), **Bob Showalter** (Fric. Jew'l) and **Willard Jones** (Finishing).



**Whitey Von Nieda** (right) **Lancaster Roses'** scoring ace, receives a **Hamilton** from announcer **Leon Duckworth** prior to the first game of the **Eastern Professional Basketball League** playoff finals against **Wilkes-Barre**. **Whitey**, who was the leading scorer of the **Eastern circuit**, tallied 682 points during the regular 30 game season, and added 99 more in the five playoff contests to run his total for the 1946-47 campaign to 781 points in 35 games for a per

### GIRL SOFTBALLERS READY FOR SEASON

Sprinkled with veterans and newcomers, the **Hamilton Girls' 1947** softball edition held its first practice of the season on **April 14** in preparation for the opening game of the **Girls' City Industrial Softball League** the early part of **May**.

Indications are that league competition this season will be rugged because of the additional teams planning on entering the loop. This means that the **Hamilton** club must field a team capable of holding its own in this type of competition.

With all positions open, the tussle for starting berths is lively. Making no predictions at this early date, coach **Red Shanabrook** (Finishing) is confident the squad will play good ball.

The following players are out for the team: **Frances Herr**, **Jean Hertzler**, **Betty Plourde** and **Alice Johnson**, all of **Dial**, **Jean Graeff** (Jewel Mfg.), **Miriam Sherrard** (Statistics), **Clara Boas** (Flt. St.), **Jane Hougendobler** (Plate), **Ruth Reeser** (Bal. Staff), **Ruth King** (Press), **Martha Kreider** and **Betty Forrey**, both of **Automatic**; **Lois Jansen** (Case Office), **Mona Yunginger** (B. Staff), **Ruth Sinclair** (Escape), **Mary Jacobs** (Service), "**Jackie**" **Hoehn** (Watch Res.), **Julia Heida** (Production).

The **National League** permits a player sent to the showers by the umpire in the first game of a double-header, to return for the second contest. In the **American League** he is through for the day! . . . The record throw of a baseball in a public demonstration is held by big **Ed Williamson**, shortstop of the **Chicago Cubs**, in the 80's. His best throw: 426½ feet.

This story dates back to 1917 when **Roger Peckinpugh** was short-stopping for the **Yankees** and the training camp was overflowing with second base candidates.

"Two-man or three-man competition existed at most positions, but at least a half dozen candidates were trying to win **Joe Gedeon's** second base job," **Peckinpugh** recalled.

"**Gedeon** didn't think too highly of this situation; not because he was afraid he'd be demoted, but because there wasn't room around the sack for all during infield practice. One day a headline in the **Macon, Ga.**, paper read: '**Czar of Russia Abdicates!**' **Gedeon** took one look at it and said: 'I'll bet that bum's comin' over here to try out for second'."

## HERTZLER-SWEIGART TEAM WIN PIN TITLE

### Third Annual Tourney Draws 96 Teams for Mixed Doubles

When the sound and fury of falling pins had subsided after two consecutive Saturdays of blasting the maples, the 1947 **H.R.A. Mixed Doubles Bowling Champions** were **Jean Hertzler** (Dial) and **Warren Sweigart** (Machine Shop) with a combined plus handicap score of 1169.

The **Hertzler-Sweigart** combine battled their way through a field of 96 teams to win this third annual affair on the **Overlook Alleys** with individual totals of 473 and 622 respectively for a combined total of 1095. A handicap of 74 pins bolstered their winning scores to 1169 giving them the top prizes of two **Hamilton** watches, an "**Olga**" and a "**Myron**." Actually this team won high without handicap, but the rules called for one prize to a winning contestant.

Second money of \$10.00 went to the team of **Dot Shultz** (Friction Jewelry) and **Walt Reynolds** (Automatic) with a combined plus handicap score of 1114. **Virginia Phillips** (Bal. Staff) and **Eddie Bostick** (Machine) took third money of \$7.50 with an 1105 combined plus handicap score. **Julia Heida** (Material Con.) and **Wyn Davis** (Planning) gained the fourth spot of \$5.00 with an even 1100 score.

The high team score without handicap went to **Dot Shultz** (Friction Jewelry) and **Wilmer Gingrich** (Chem. Res.) with a combined total of 1073. This "topper" score was worth \$8.00 to the winners.

**Lynn Walliek** (Train) knocked off the **Men's** high triple with a neat 610 recording good for \$3.00. **Mollie King** (Plate) copped the **Ladies'** high triple honors with a respectable 534 which was worth \$3.00. **Clarence Smith** (Friction Jewelry) blasted out a 244 game without handicap to take down \$2.00 for **Men's** high single honors, while **Betty Smith** (Spec. Assem.) without the aid of handicap smacked down the maples for a 192 game to waltz off with the **Ladies'** high single honors good for \$2.00.

The low team score with handicap went to **Betty Bard** and **Ed Wentz**, both of **Balance Staff**, with a 741.

A spokesman for the affair said: "We were highly pleased with the results of this tournament. There was a lot of interest shown. The fine prizes awarded had a great deal to do with the large entry list and the committee handling the event worked hard to make it a success."

The committee in charge of the tournament which was held on **March 1** and **8** was composed of **Wilmer Gingrich** (Chem. Res.), **Norm Trimble** (Machine Shop), **Erla Witmer** (Plate), **Jinx Ganse** (Insp.), **Skip Wise** (Assem. Res.) and **Wally Bork** (Prod. Con.).

**Johnnie Lujack**, **Notre Dame's** All American quarterback, is also a good high jumper. . . .

## BASEBALL A LA '47

Timely Topics figures they'll finish like this:

American	National
Boston	St. Louis
New York	New York
Chicago	Boston
Detroit	Chicago
Cleveland	Pittsburgh
Washington	Brooklyn
St. Louis	Philadelphia
Philadelphia	Cincinnati